

## GENERAL CAREER INFORMATION

Dentists diagnose, prevent, and treat problems with teeth or mouth tissue. They remove decay, fill cavities, examine x rays, place protective plastic sealants on children's teeth, straighten teeth, and repair fractured teeth. They also perform corrective surgery on gums and supporting bones to treat gum diseases. Dentists extract teeth and make models and measurements for dentures to replace missing teeth. They provide instruction on diet, brushing, flossing, the use of fluorides, and other aspects of dental care. They also administer anesthetics and write prescriptions for antibiotics and other medications.

Dentists use a variety of equipment, including x-ray machines; drills; and instruments such as mouth mirrors, probes, forceps, brushes, and scalpels. They wear masks, gloves, and safety glasses to protect themselves and their patients from infectious diseases.

Dentists in private practice oversee a variety of administrative tasks, including bookkeeping and buying equipment and supplies. They may employ and supervise [dental hygienists](#), [dental assistants](#), [dental laboratory technicians](#), and [receptionists](#).

Most dentists are general practitioners, handling a variety of dental needs. Other dentists practice in any of nine specialty areas. *Orthodontists*, the largest group of specialists, straighten teeth by applying pressure to the teeth with braces or retainers. The next largest group, *oral and maxillofacial surgeons*, operates on the mouth and jaws. The remainder may specialize as *pediatric dentists* (focusing on dentistry for children); *periodontists* (treating gums and bone supporting the teeth); *prosthodontists* (replacing missing teeth with permanent fixtures, such as crowns and bridges, or with removable fixtures such as dentures); *endodontists* (performing root canal therapy); *public health dentists* (promoting good dental health and preventing dental diseases within the community); *oral pathologists* (studying oral diseases); or *oral and maxillofacial radiologists* (diagnosing diseases in the head and neck through the use of imaging technologies).

## EDUCATION AND TRAINING

All 50 States and the District of Columbia require dentists to be licensed. To qualify for a license in most States, candidates must graduate from 1 of the 56 dental schools accredited by the American Dental Association's (ADA's) Commission on Dental Accreditation in 2004, and then must pass written and practical examinations. Candidates may fulfill the written part of the State licensing requirements by passing the National Board Dental Examinations. Individual States or regional testing agencies administer the written or practical examinations.

Dental schools require a minimum of 2 years of college-level pre dental education, regardless of the major chosen. However, most dental students have at least a bachelor's degree. Pre dental education emphasizes coursework in science, and many applicants to dental school major in a science such as biology or chemistry, while other applicants major in another subject and take many science courses as well. A few applicants are accepted to dental school after 2 or 3 years of college and complete their bachelor's degree while attending dental school.

Dental school usually lasts 4 academic years. Studies begin with classroom instruction and laboratory work in basic sciences, including anatomy, microbiology, biochemistry, and physiology. Beginning courses in clinical sciences, including laboratory techniques, also are provided at this time. During the last 2 years, students treat patients, usually in dental clinics, under the supervision of licensed dentists. Most dental schools award the degree of Doctor of Dental Surgery (DDS). The rest award an equivalent degree, Doctor of Dental Medicine (DMD).

Some dental school graduates work for established dentists as associates for 1 to 2 years to gain experience and save money to equip an office of their own. Most dental school graduates, however, purchase an established practice or open a new one immediately after graduation.

In 2004, 17 States licensed or certified dentists who intended to practice in a specialty area. Requirements include 2 to 4 years of postgraduate education and, in some cases, the completion of a special State examination. Most State licenses permit dentists to engage in both general and specialized practice. Dentists who want to teach or conduct research usually spend an additional 2 to 5 years in advanced dental training, in programs operated by dental schools or hospitals. According to the ADA, each year about 12 percent of new graduates enroll in postgraduate training programs to prepare for a dental specialty.

## PERSONAL QUALITIES

Dentistry requires diagnostic ability and manual skills. Dentists should have good visual memory, excellent judgment regarding space and shape, a high degree of manual dexterity, and scientific ability. Good business sense, self-discipline, and good communication skills are helpful for success in private practice. High school and college students who want to become dentists should take courses in biology, chemistry, physics, health, and mathematics.

## DENTAL EDUCATION IN TEXAS

There are three dental schools in Texas, all are state-supported institutions. All three dental schools have a four-year professional curriculum. For further information on dental programs in Texas, you should visit the website of the schools.

### **The University of Texas Houston Dental Branch**

P.O. Box 20068  
Houston, TX 77225-0068  
Tel: (713) 500-4151  
Fax: (713) 500-4425  
[www.db.uth.tmc.edu](http://www.db.uth.tmc.edu)

### **The University of Texas Health Science Center at San Antonio Dental School**

7703 Floyd Curl Drive  
San Antonio, TX 78229  
Tel: (210) 567-6082  
Fax: (210) 567-4776  
[www.uthscsa.edu](http://www.uthscsa.edu)

### **Baylor College of Dentistry The Texas A&M University System**

P.O. Box 660677  
Dallas, TX 75266-0677  
Tel: (214) 828-8230  
Fax: (214) 874-4567  
<http://www.tambcd.edu>

## UNDERGRADUATE MAJOR AND COURSE REQUIREMENTS

Dental schools across the country differ in terms of their course requirements for entry into the dental curriculum. Dental schools generally encourage students to major in the discipline in which they have the most interest. A science major is not required. Most applicants to dental schools are science majors (biology being the most popular major among pre-med students), but many other successful applicants to dental schools come from majors as diverse as humanities, social and behavioral sciences, engineering, business, and the arts. The most popular majors at UT Dallas for pre-dental students are biology, molecular biology, neuroscience, and business.

Because dentistry is a field that deals directly with helping people, most dental schools like for applicants to have some academic background in the humanities. UT Dallas offers many courses that could be helpful for students in this regard; courses such as medical Spanish, medical ethics, history of science and medicine, medicine and the law. These courses can also be helpful in broadening students' reading, writing and critical thinking skills.

The specific courses required for entry into dental schools (called pre-requisites) vary some by school. However, in general, the following courses are necessary for fulfilling the requirements and for making an applicant as competitive as possible.

- 2 semesters of English (RHET courses, LIT courses, or adv. writing courses at UT Dallas)
- 1 semester of calculus or statistics
- 2 semesters of physics with lab
- 2 semesters of general chemistry with lab
- 2 semester of organic chemistry with lab
- 4 semesters of biology (2 semesters with lab)
- 1 semester of biochemistry

Additional preparation might include courses in Spanish, psychology, business management, computer information systems, and art.

### **GUIDELINES FOR APPLYING TO TEXAS DENTAL SCHOOLS**

Dental schools will be assessing six basic factors to judge performance in college and qualifications for admission. These factors are residency status (preference given to Texas residents), college grade point average (cumulative and science GPA), Dental Admission Test (DAT) scores, a completed application form, the health profession evaluation letter(s), and a personal interview. In addition, factors which may have affected the applicant's personal or academic history are considered.

*State Residency:* By Texas state law, the enrollment of non-resident applicants to state funded medical and dental schools is limited to 10% of the entering class, so Texas residents are given preference in admissions. If there is a question about Texas residency, it will be necessary to complete a Residency Questionnaire. Please refer to [www.utexas.edu/student/giac/residency.html](http://www.utexas.edu/student/giac/residency.html) for further information or contact the dental school directly.

*Academic Performance:* The GPA is a major factor in evaluating academic performance. Also considered are: (a) Consistency of grades, (b) performance in required courses, (c) course load per semester, (d) number of colleges attended, (e) discrepancies between GPA and DAT scores, and (f) late attainment of academic success (i.e., trends in academic history). Official transcripts from all colleges or universities attended should be sent to the Texas Medical and Dental School Application Service. Dental schools will not require original official transcripts to be sent until acceptance is extended. The GPA will be calculated from grades for course work at all colleges attended and will be calculated by year, cumulative and science courses. All grades will be used in the calculation, regardless of whether courses were repeated.

*Dental Admission Test (DAT):* The DAT is administered by computer on most any day of the year. Dental applicants should plan to take the test in the spring prior to applying to dental school. Applicants may obtain information about the DAT, including details on registration for an exam date, at [www.ada.org](http://www.ada.org).

After the applicant submits the application form and fee payment, he/she will be notified regarding registration. The applicant will be instructed to call an 800-number to arrange a day, time, and place (at a designated Sylvan Technology Test Center) to take the test. A 48-hour advance notice is required for scheduling the test. The student will receive unofficial scores immediately after completing the test; dental schools and advisors will receive the results in about three weeks. If the student wishes to retest, he/she must wait at least 90 days. The DAT is a one-half day exam comprised of multiple-choice questions over the following areas: Survey of the Natural Sciences (biology, general chemistry, organic chemistry), Reading Comprehension (dental and basic sciences), Quantitative Reasoning, and Perceptual Ability (two and three dimensional problem solving). DAT scores range from 1 to 30; a standard score of 17 indicates an average performance, nationally. The academic average for the TMDSAS applicant pool has been approximately 18 over the last few years. For students matriculated in the three Texas Dental Schools, the academic average is approximately 19.

*The Application:* Application to dental school is made in the summer of the year preceding entry. Early application is advised. It is recommended that applications be submitted as soon as possible after the online application becomes available beginning May 1. Certainly, students should submit the application by the end of July in order to be competitive for interview positions. All three Texas dental schools participate in the Texas Medical and Dental Schools Application Service. Information and the online application are available at [www.utsystem.edu/tmdsas](http://www.utsystem.edu/tmdsas).

The application period extends from May 1 to November 1 for the next entry year. A student may be notified as early as December 1 regarding his/her acceptance. Texas residents are required to use the application service. The website is also a valuable resource for current application and admission information.

If a student is applying to an out-of-state dental school, he/she should check to see if the school participates in the Associated American Dental Schools Application Service (AADSAS). Students may access the application through the electronic application service at <http://www.adea.org>. The electronic application is available May 15.

Poorly or incorrectly prepared application forms can cause delays in action on the application and may influence initial screening or later consideration of the application. Following these hints can reduce the probability of a sloppy or inaccurate form:

- Budget sufficient time to complete the application,
- Use your college transcripts to input courses taken,
- Have a current photograph available,
- Be honest in responding to application questions,
- Get assistance in writing the application personal statement,
- Accurately classifying courses as science or non-science,
- Proofread carefully all information in the application (not just the personal statement,
- Keep a copy of the completed application,
- Periodically check on the status of your application.

*Health Professions Evaluation:* In addition to your DAT scores and college transcript(s), your TMDSAS application will request a written evaluation submitted by the health professions advisor or advisory committee at your undergraduate institution. A written evaluation from the Health Professions Advisory Committee at the applicant's school is preferred. If an applicant's institution does not have a Committee, two individual faculty letters are acceptable. The UT Dallas Health Professions Evaluation process will meet the requirements of the Texas dental schools. Baylor College of Dentistry also requires a practicing dentist to submit a letter of recommendation as a part of the HPE process.

*Interview:* An interview is required prior to a student's acceptance into dental school. An applicant may be invited to interview with the Admissions Committee during the fall prior to matriculation. The Committee will assess non-cognitive factors such as communication skills, extracurricular activities, and motivation for a career in dentistry.

## TIMELINE FOR DENTAL SCHOOL APPLICATION

### Spring of Junior year

- Take the DAT no later than August 1 if possible.
- Complete registration information for the UT Dallas Health Professions Evaluation (HPE) process. Attend required seminars for the HPE process.
- Submit of on-line application to TMDSAS starting May 1.
- Complete secondary application for applicable schools.
- Submit AADSAS application for dental schools outside of Texas.

### Summer between Junior and Senior years

- Request the Health Professions Advising Center to submit your HPE packet to TMDSAS and other dental schools to which you may be applying.
- Retake the DAT in August or September, if necessary.

### Fall of Senior year

- Interview at dental schools when invited.
- Inform the UT Dallas Health Professions Advising Center when you get interviews.

## SUGGESTED READING

Following is a short list of reading materials that may be useful in preparing to enter dental school. This is a selected list; new books and other materials are constantly being published. Ask your advisor about any recent volumes, which may be helpful.

*Dental School Catalogs.* These may be available in your health professions advisor's office or you can often access a catalogue by visiting a dental schools' web site.

*Official Guide to Dental Schools* (revised annually). Published by and available from: American Dental Education Association, 1625 Massachusetts Avenue, NW, Washington, DC 20036-2212; Tel: (202) 667-9433; Fax: (202)667-0642. Website: [www.adea.org](http://www.adea.org).

*Opportunities for Minority Students in United States Dental Schools.* American Dental Education Association at above address.

*Dental Admission Testing Program: Applications and Preparation Materials* (revised annually). Available **free of charge** to dental school applicants. It consists of sample examinations used in the DAT and enables candidates to become familiar with the types of material included in the test. Available from: Dental Admission Testing Program, 211 East Chicago Ave, Ste 1846, Chicago, IL 60611-2678; (312) 440-2689. American Dental Association website: [www.ada.org](http://www.ada.org).

*DAT Tutorial.* A tutorial is available on diskette that will introduce the applicant to the mechanics of taking the computerized DAT. It does not include sample questions, but it does provide the basic steps involved in working through the test. Applicants may be able to obtain a copy from their advisor or by submitting a letter and a \$10 money order to: DAT Tutorial, Dept of Testing Services, 211 East Chicago Ave, Ste 1846, Chicago, IL 60611.

*ASDA Handbook: A Resource Guide for Predental Students.* Contains information on the admissions process, financial aid, as well as other dental career information. American Student Dental Association, 211 East Chicago Ave, Ste 1160, Chicago, IL 60611; Tel: (312) 440-2795; toll free (800) 621-8099; ext 2795; Fax: (312) 440-2820; website: [www.asdanet.org](http://www.asdanet.org)

NAAHP Publications – *Medical Professions Admission Guide: Strategy for Success. Write for Success: Preparing a Successful Professional School Application.* NAAHP, P.O. Box 1518, Champaign, IL 61824-1518; Tel: (217) 355-0063; Fax: (217) 355-1287; website: [www.naahp.org](http://www.naahp.org)

Dental Admission Test (DAT) Computerized Sample Tests. Available from ScholarWare at [www.scholarware.com](http://www.scholarware.com)

*Complete Preparation for the DAT.* Lippincott Williams & Wilkins, P.O. Box 1600, Hagerstown, MD 21741; Tel: (800) 638-3030; Fax: (301) 223-2365; website: [www.lww.com](http://www.lww.com)

*How to Prepare for the DAT.* Barron's Educational Series, Inc., 250 Wireless Blvd, Hauppauge, NY 11788-3917; Tel: (800) 645-3476; Fax: (631) 434-3723; website: [www.barronseduc.com](http://www.barronseduc.com)

## WEBSITES TO VISIT

There are a number of excellent websites available to students interested in medicine as a career. Students are encouraged to visit the websites of particular medical schools. Following are a few other websites that can be helpful.

Careers in Dentistry	<a href="http://www.dentistry.com">www.dentistry.com</a>
American Dental Education Association	<a href="http://www.adea.org">www.adea.org</a>
American Dental Association	<a href="http://www.ada.org">www.ada.org</a>
U.S. Department of Labor	<a href="http://www.bls.gov/oco/ocos072.htm">www.bls.gov/oco/ocos072.htm</a>
Exploring Health Careers	<a href="http://www.explorehealthcareers.org">www.explorehealthcareers.org</a>
Texas Medical and Dental Schools Application Service	<a href="http://www.utsystem.edu/tmdsas">www.utsystem.edu/tmdsas</a>